

Rajiv Gandhi University of Health Sciences, Karnataka

Sixth Semester B. Pharm Degree Examination – 25-Nov-2021

Time: Three Hours

Max. Marks: 75 Marks

PHARMACEUTICAL BIOTECHNOLOGY

Q.P. CODE: 5027

Your answers should be specific to the questions asked.

Draw neat labeled diagrams wherever necessary.

All the Questions are compulsory.

LONG ESSAYS

2 x 10 = 20 Marks

1. What is enzyme immobilization? Explain covalent bonding and gel entrapment methods with advantages and disadvantages.

OR

Describe the general method of recombinant DNA technology.

2. Describe the construction and working of a fermenter with a neat labelled diagram.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Describe the production and uses of amylase.

OR

Explain the production of insulin by rDNA technology.

4. Describe the technique of polymerase chain reaction (PCR).

OR

Explain the production of penicillin G by fermentation technology.

5. Classify immunity. Write the difference between active and passive immunity
6. Outline the general method for the preparation of live attenuated bacterial vaccines.
7. Describe the structure of an immunoglobulin with a neat labelled diagram.
8. Describe ELISA with its applications.
9. Explain microbial biotransformation with examples.

SHORT ANSWERS

10 x 2 = 20 Marks

10. Write any four pharmaceutical applications of biosensors.
11. Write any four pharmaceutical applications of biotechnology.
12. Enlist the different types of vectors used in genetic engineering.
13. Write the source organism and uses of Griseofulvin.
14. What are anti-toxins? Give an example.
15. Write any two functions of MHC.
16. What are plasma substitutes?
17. Write any four applications of western blotting?
18. What are point mutation?
19. What do you mean by conjugation and transduction?
